Claims

1. A method for selecting a combination therapy for the treatment, stabilization, or prevention of a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of:

(a) analyzing the expression profile of more than one mRNA and/or protein in a sample obtained from said mammal; and

(b) selecting a therapy that comprises two or more compounds that each (i) decrease the expression level or activity of an mRNA or protein that has a higher than normal expression level in said mammal and/or (ii) increase the expression level or activity of an mRNA or protein that has a lower than normal expression level in said mammal.

2. A method for preventing, delaying, or treating a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of:

(a) analyzing the expression profile of more than one mRNA and/or protein in a sample obtained from said mammal;

(b) selecting a therapy that comprises two or more compounds that each (i) decrease the expression level or activity of an mRNA or protein that has a higher than normal expression level in said mammal and/or (ii) increase the expression level or activity of an mRNA or protein that has a lower than normal expression level in said mammal; and

(c) administering said therapy to said mammal in an amount sufficient to treat, stabilize, or prevent said cancer or angiogenesis related disease.

3. A method for stratification of subjects involved in a clinical trial of a combination therapy comprising two or more compounds for the treatment, stabilization, or prevention of a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of:

(a) analyzing the expression profile of more than one mRNA and/or protein in a sample obtained from a subject; and

(b) determining the presence of a lower or higher than normal expression level for more than one mRNA and/or protein in said sample before, during, or after said clinical trial, wherein the presence of said expression profile in said subject places said subject into a subgroup for said clinical trial.

4. The method of claim 1, 2, or 3, wherein said therapy comprises a signal transduction inhibitor.

5. The method of claim 4, wherein all of the pharmaceutically active compounds in said therapy are signal transduction inhibitors.

6. The method of claim 4, wherein said therapy comprises a compound other than a signal transduction inhibitor.

7. A method for selecting a signal transduction inhibitor for the treatment, stabilization, or prevention of a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of:

(a) analyzing the expression profile of one or more mRNA molecules and/or proteins in a sample obtained from said mammal, wherein the expression or activity of said mRNA molecule or protein can be modulated by a signal transduction inhibitor; and

(b) selecting a signal transduction inhibitor that (i) decreases the expression level or activity of an mRNA or protein that has a higher than normal expression level in said mammal and/or (ii) increases the expression level or activity of an mRNA or protein that has a lower than normal expression level in said mammal.

8. A method for preventing, delaying, or treating a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of:

(a) analyzing the expression profile of one or more mRNA molecules and/or proteins in a sample obtained from said mammal, wherein the expression or activity of said mRNA molecule or protein can be modulated by a signal transduction inhibitor;

(b) selecting a signal transduction inhibitor that (i) decreases the expression level or activity of an mRNA or protein that has a higher than normal expression level in said mammal and/or (ii) increases the expression level or activity of an mRNA or protein that has a lower than normal expression level in said mammal; and

(c) administering said signal transduction inhibitor to said mammal in an amount sufficient to treat, stabilize, or prevent said cancer or angiogenesis related disease.

9. A method for stratification of subjects involved in a clinical trial of a signal transduction inhibitor for the treatment, stabilization, or prevention of a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of:

(a) analyzing the expression profile of one or more mRNA molecules and/or proteins in a sample obtained from a subject, wherein the expression or activity of said mRNA molecule or protein can be modulated by a signal transduction inhibitor; and

(b) determining the presence of a lower or higher than normal expression level for one or more mRNA molecules and/or proteins in said sample before, during, or after said clinical trial, wherein the presence of said expression profile in said subject places said subject into a subgroup for said clinical trial.

10. The method of claim 7 or 8, further comprising selecting another signal transduction inhibitor that (i) decreases the expression level or activity of another mRNA or protein that has a higher than normal expression level in said mammal and/or (ii) increases the expression level or activity of another mRNA or protein that has a lower than normal expression level in said mammal.

11. The method of claim 7 or 8, further comprising repeating step (b) until signal transduction inhibitors are selected for the modulation of the expression or activity of all the cancer or angiogenesis related mRNA molecules or proteins that have lower or higher than normal expression levels in said mammal.

12. The method of claim 4, 7, 8, or 9, wherein said signal transduction inhibitor is Herceptin.

13. The method of claim 4, 7, 8, or 9, wherein said signal transduction inhibitor is ^{Pr}Gleevec™.

14. The method of claim 1, 2, or 3, wherein said therapy comprises five compounds.

15. The method of claim 1, 2, 3, 7, 8, or 9, wherein step (a) comprises comparing the expression level of an mRNA or protein in said sample to the corresponding level in a control sample.

16. The method of claim 1, 2, 3, 7, 8, or 9, wherein step (a) comprises comparing the expression level of an mRNA or protein in a sample from cancerous cells in said mammal to the corresponding level in a sample from noncancerous cells in said mammal.

17. The method of claim 1, 2, 3, 7, 8, or 9, wherein at least one of said compounds or said signal transduction inhibitors modulates the expression of at least 3 mRNA molecules or proteins.

18. The method of claim 1, 2, 3, 7, 8, or 9, wherein said therapy or said signal transduction inhibitor modulates the expression of at least 10 mRNA molecules or proteins.

19. The method of claim 1, 2, 3, 7, 8, or 9, wherein the expression profile comprises the expression level of mRNA molecules or proteins selected from the group consisting of vascular endothelial growth factor, transforming growth factor alpha, angiopoietin-1, plasminogen activator inhibitor-1, and thrombospondin-1.

20. The method of claim 1, 2, 3, 7, 8, or 9, wherein said cancer is a prostate cancer, breast cancer, ovarian cancer, gastric cancer, bladder cancer, salivary gland carcinoma, gastrointestinal cancer, lung cancer, colon cancer, melanoma, a brain tumor, leukemia, lymphoma, or carcinoma.

21. The method of claim 1, 2, 3, 7, 8, or 9, wherein said cancer is an estrogen-related cancer.

22. The method of claim 1, 2, 3, 7, 8, or 9, wherein said cancer is not an estrogen-related cancer.

23. The method of claim 1, 2, 3, 7, 8, or 9, wherein said therapy inhibits angiogenesis of said cancer by at least 25%.

24. The method of claim 23, wherein said therapy inhibits angiogenesis of said cancer by at least 50%.

25. The method of claim 1, 2, 3, 7, 8, or 9, wherein said mammal or said subject is a human.

26. The method of claim 2, 3, 8, or 9, wherein said therapy is administered using an extended release device.

27. The method of claim 2, 3, 8, or 9, wherein said therapy is administered orally, intramuscularly, intravenously, subcutaneously, or by inhalation.